

1 Claims 1-45 are pending and are listed below:

2  
3 1. (Original) A method of providing a user interface (UI) comprising:  
4 rendering a DHTML document from an XML document using at least one  
5 XSLT transformation (XSL-T); and  
6 presenting a user interface based, at least in part, on the XSL-T that was  
7 used to render the DHTML document.

8  
9 2. (Original) The method of claim 1, wherein said presenting comprises  
10 automatically presenting the user interface.

11  
12 3. (Original) The method of claim 1, wherein the user interface  
13 comprises a context block.

14  
15 4. (Original) The method of claim 1, wherein the user interface  
16 comprises an in-document user interface.

17  
18 5. (Original) The method of claim 1, wherein the user interface  
19 comprises an accelerator.

20  
21 6. (Original) The method of claim 1, wherein the user interface  
22 comprises one or more of the following: a context block, an in-document user  
23 interface, and an accelerator.

24  
25 7. (Original) The method of claim 1, wherein the presenting comprises  
deciding which user interface to present from a number of user interfaces.

1  
2 8. (Original) The method of claim 7, wherein deciding comprises:  
3 ascertaining a user's actions within a document; and  
4 presenting a user interface based on the ascertained user's actions.  
5

6 9. (Original) One or more computer-readable media having computer-  
7 readable instructions thereon which, when executed by a computer, implement the  
8 method of claim 1.  
9

10 10. (Original) A method of providing a user interface comprising:  
11 considering multiple parameters one of which includes an XSL-T file; and  
12 based upon the considered parameters, rendering a user interface sufficient  
13 to enable a user to interact with a DHTML view that has been rendered by the  
14 XSL-T file from an XML document.  
15

16 11. (Original) The method of claim 10, wherein one parameter  
17 comprises a user location within a particular document.  
18

19 12. (Original) The method of claim 10, wherein one parameter  
20 comprises a portion of an XML schema that corresponds to a user's selection.  
21

22 13. (Original) The method of claim 10, wherein one parameter  
23 comprises one or more UI types that would be desirable to generate.  
24

25 14. (Original) The method of claim 10, wherein the parameters  
comprise:

1 a user location within a particular document;  
2 a portion of an XML schema that corresponds to a user's selection; and  
3 one or more UI types that would be desirable to generate.  
4

5 15. (Original) The method of claim 10, wherein the considering of the  
6 multiple parameters comprises considering one or more constructs within an XSL-  
7 T file.  
8

9 16. (Original) The method of claim 10, wherein the considering of the  
10 multiple parameters comprises identifying from multiple user interfaces which  
11 user interfaces are more suited to have their functionalities provided by an in-  
12 document user interface.  
13

14 17. (Original) The method of claim 10 further comprising modifying  
15 structure of the XML document based upon the user engaging the user interface.  
16

17 18. (Original) The method of claim 10, wherein the user interface  
18 comprises an in-document user interface.  
19

20 19. (Original) One or more computer-readable media having computer-  
21 readable instructions thereon which, when executed by a computer, implement the  
22 method of claim 10.  
23

24 20. (Original) A method of providing a user interface comprising:  
25 making a selection in a DHTML view;

1 determining, based upon the selection, a corresponding selection in an  
2 XML document;

3 determining, based upon the corresponding selection in the XML  
4 document, a corresponding portion of an XML schema;

5 determining, based upon the XML schema portion, one or more types of  
6 action that can be undertaken;

7 producing one or more operations that can be undertaken for various  
8 determined action types; and

9 determining, from an XSL-T file that rendered the DHTML view, a user  
10 interface type that can be displayed for a user and used to implement the one or  
11 more operations.

12  
13 21. (Original) The method of claim 20, wherein the making of the  
14 selection comprises moving a cursor to a particular area within a document.

15  
16 22. (Original) The method of claim 20, wherein the action types  
17 correspond to ways in which a user might manipulate a portion of a document they  
18 have selected.

19  
20 23. (Original) The method of claim 20, wherein the user interfaces  
21 comprise in document user interfaces.

22  
23 24. (Original) The method of claim 20 further comprising displaying an  
24 in-document user interface of a determined interface type for the user.  
25

1           25. (Original) The method of claim 24 further comprising manipulating  
2 structure of the XML document based upon user input through the displayed user  
3 interface.

4  
5           26. (Original) One or more computer-readable media having computer-  
6 readable instructions thereon which, when executed by a computer, implement the  
7 method of claim 20.

8  
9           27. (Original) A method of manipulating an XML document  
10 comprising:

11           defining one or more crystals, each of which containing one or more  
12 behaviors and an XSLT transformation for transforming an XML document into a  
13 DHTML view;

14           using the one or more crystals to render a DHTML view from an XML  
15 document;

16           enabling user interaction with the DHTML view; and

17           mapping, via the one or more behaviors, user interactions in the DHTML  
18 view to the XML document.

19  
20           28. (Original) The method of claim 27, wherein the one or more  
21 behaviors are data-shape dependent.

22  
23           29. (Original) The method of claim 27, wherein the one or more  
24 behaviors are data-shape dependent on a data shape defined by the XML  
25 document.

1           **30.** (Original) The method of claim 27, wherein the one or more  
2 behaviors are configured to function independently of an XML schema of which  
3 the XML document is an instance.

4  
5           **31.** (Original) The method of claim 27, wherein the one or more  
6 behaviors are configured to function independently of XML tags that might be  
7 used.

8  
9           **32.** (Original) The method of claim 27, wherein the behaviors are  
10 implemented as binary code.

11  
12           **33.** (Original) The method of claim 27, wherein the crystals are reusable  
13 across different XML documents.

14  
15           **34.** (Original) One or more computer-readable media having computer-  
16 readable instructions thereon which, when executed by a computer, implement the  
17 method of claim 27.

18  
19           **35.** (Original) One or more computer-readable media having computer-  
20 readable instructions thereon which, when executed by a computer, cause the  
21 computer to:

22           provide multiple crystals, each of which containing one or more behaviors  
23 and an XSLT transformation for transforming an XML document into a DHTML  
24 view;

25           use one or more of the crystals to render a DHTML view from an XML  
document;

1        attach at least one behavior to at least one DHTML tag;  
2        ascertain that a user has interacted with a DHTML view associated with the  
3        at least one DHTML tag; and  
4        use the behavior associated with the at least one DHTML tag to map a user  
5        interaction back to the XML document and make associated structural changes in  
6        the XML document.

7  
8        36.    (Original) The one or more computer-readable media of claim 35,  
9        wherein the behaviors are implemented as binary code.

10  
11       37.    (Original) The one or more computer-readable media of claim 35,  
12       wherein the behaviors are data shape dependent.

13  
14       38.    (Original) The one or more computer-readable media of claim 35,  
15       wherein the behaviors are not dependent upon an XML schema.

16  
17       39.    (Original) A method of manipulating an XML document  
18       comprising:

19       associating one or more behaviors with a DHTML tag in a DHTML view  
20       that has been rendered from an XML document; and

21       responsive to a user interacting with a DHTML view associated with the  
22       DHTML tag, using the one or more behaviors to map user interactions to the XML  
23       document and effect structural changes on the XML document.

24  
25       40.    (Original) The method of claim 39, wherein the one or more  
      behaviors are data shape-dependent.

1  
2       41. (Original) The method of claim 39, wherein the one or more  
3 behaviors are data shape-dependent, the data shape being defined by the XML  
4 document.

5  
6       42. (Original) The method of claim 39, wherein the one or more  
7 behaviors are independent of any XML schema.

8  
9       43. (Original) The method of claim 39, wherein the one or more  
10 behaviors are independent of data values.

11  
12       44. (Original) The method of claim 39, wherein the one or more  
13 behaviors are independent of one or more of: (a) any XML schema and (b) data  
14 values.

15  
16       45. (Original) A software structure embodied on a computer-readable  
17 medium comprising one or more crystals, each of which containing at least one  
18 behavior and XSL-T for rendering XML into DHTML, the behaviors being data  
19 shape dependent and being configured for use with common data shapes  
20 independent of any XML schema.